

THE NATIONAL AGRICULTURAL LIBRARY:  
THE HERITAGE OF GATHERING AND  
DISSEMINATING AGRICULTURAL INFORMATION

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EARLY DEVELOPMENT OF  
INFORMATION GATHERING ORGANIZATIONS

The value of agriculturally related information has a early tradition and history as witnessed in both the germination of information gathering and its development. As early as 1500 B.C. the great expedition to the "Land of Punt" in East Africa to collect plants during the reign of Queen Hatsheput was recorded on the walls of her temple at Der el Bahri. Here the men of Punt, were portrayed transporting an incense-bearing tree, which had been uprooted and placed in a basket for transport. (1) As the Old World advanced and commerce began to flourish, the national quest for power and glory, which usually accompanied the expansion of trade, increasingly embraced the desire for trans-Atlantic contacts.

And, the discovery of the New World attracted the attention of European observers, travelers, and dedicated naturalists. In particular, the early trans-Atlantic foundation for the exchange of plant knowledge was laid, in part, by the collecting activities of explorers, colonists, traders, sea captains, missionaries, and others. The democratization of the gathered agricultural and natural history information was also influenced significantly by the invention of the printing press, the introduction of moveable type, the discovery of less expensive methods for manufacturing paper, and the desire for new and useful information. In 1471, the first printed book of agriculture by Pietro de Crescenzi entitled Ruralia Commode (Augsburg, Johann Schussler, "circiter" February 16, 1472) was published. This date, 1471, becomes significant because from this point on in history greater emphasis would be placed on rural affairs. In England, the first book on the practice of husbandry entitled Boke of Husbandrye by John Fitzherbert, was published in 1523 during the reign of King Henry VIII. (2)

The discovery of the New World, in fact, led to the introduction of an entirely new range of economic plants to Europe. More than 10 crop plants of world-wide importance resulted from the discovery of the Americas including such staple food crops as beans, manioc, peanuts, potatoes, cotton,

pineapple, and tobacco. In 1542, Leonard Fuchs, physician and one of the "German Fathers of Botany," published the extraordinary herbal work entitled De Historia Stirpium (History of Plants) containing 512 woodcut illustrations based on the actual observation of living plants. Herein, for example, one finds the first illustration of Indian Corn (Triticum frumentum) as well as the foxglove and the pumpkin gourd. In 1703, the plant Fuchsia was named in Fuchs' honor - a fitting tribute to his popularity. Today, Fuchs' work is considered one of the most famous and beautiful herbals ever published. (3)

From the late 16th century to the late 18th century, it became increasingly apparent in scientific circles that the exchange of both plants and knowledge on both sides of the Atlantic offered challenge and financial risk as well as excitement and potential reward. For example, the naturalist, Thomas Hariot (1560-1621) in his work entitled Brief and True Report of the New Found Land of Virginia (1590), describes the oak, walnut, cedar, cyprus, holly, willow, and elm that he saw in his explorations. John Josselyn, an Englishman living in Boston added to the information gathering process with his work, New England's Rarities (1672). Major scientific organizations such as The Royal Society of London For Improving Knowledge provided support and encouragement to its members who embarked on plant collecting expeditions in North America. John Banister (1650-1692), the noted botanist, collected plants and wrote in full detail of his findings. John Bartram (1699-1777), another famous plant collector and botanist, became as avidly involved in plant exchange as he was in his correspondence and in his publications. Linnaeus, familiar with his correspondence and publications, referred to him as "The Greatest Natural Botanist of the World." Through his friendship and communications with Peter Collinson, a British naturalist, Bartram introduced 200 plants into Europe between 1735 and 1780. Today researchers are able to examine many letters between Bartram and Collinson and gain insight into the plant collecting and transport process. (4)

Williamsburg became a major meeting place for several notable plant collectors, as well as a unique center for North American garden history. Mark Catesby (1679?-1749), naturalist, traveller, and plant collector in America, lived in Williamsburg at various times between 1712 and 1725, and shipped seeds and plants to and from Europe and America. In the first half of the 18th century, Catesby also authored and illustrated one of the botanical landmarks of America entitled Natural History of the Carolinas, Florida and the Bahama Islands (1731-1743). This particular publication, which included over 100 colored illustrations, stimulated further interest among

the British aristocracy to acquire plants from America. The 18th century was a period of close relationships between explorations, natural history illustrations, printed knowledge, and wealthy patrons.

In Colonial America the wealthy and articulate agriculturalists and naturalists often turned their private libraries into active information centers from which agricultural and botanical knowledge was acquired as well as transmitted to others through a variety of mediums such as correspondence, books, journals, the press, and participation in professional societies. As it turned out, one of the most notable of the early agricultural libraries in the colonies included the private collection of George Washington. Washington's Mansion House Library reflected his personal interest in improving the agricultural potential of his own eight thousand acre estate. In particular, Washington's Library was a working office and focal point for agricultural reading and planning for the management of his farming operations. (5) He exchanged his findings and ideas with leading agriculturalists in Britain. (6) the most notable of these being Arthur Young, author of Annals of Agriculture, and Sir John Sinclair, a Scottish agriculturist and first President of the British Board of Agriculture. The trans-atlantic correspondence of these two agriculturalists with Washington was eventually published in 1801. (7). Washington was not an avid reader; he did, however, study and assiduously extract information from the recently acquired books on agriculture in his library.

The first agricultural organization to be concerned exclusively with the promotion of agricultural reform in America -- the Philadelphia Society for Promoting Agriculture -- was finally established in 1885. Meetings were held at Patrick Byrne's Tavern "Sign of the Cock" until June of 1785 when the meetings were moved to Carpenters' Hall. The society itself was partially modeled after the agricultural societies which had been formed already in Europe. The Society embarked immediately upon a plan to acquire outstanding works on agriculture for its library. Society members not only took pride in the growth of their own individual libraries but also fostered through donations the development of the libraries of these societies. On May 14, 1785, John Beale Bordley, founder of the Society, presented it with 60 copies of his work entitled Summary Views on the Course of Crops in Husbandry of England and Maryland (1784). (8) Two years later, on July 3, 1787, Washington, who was an "honorary member," deposited with the Society six volumes of the Annals of Agriculture. (9)

In 1796, Washington recommended to Congress, in his "Farewell Address" that public funds be appropriated to assist in the development of a National Board of Agriculture for the purpose of collecting and disseminating agricultural information:

It will not be doubted, that with reference either to individual, or National Welfare,

Agriculture is of primary importance....Institutions for promoting it, grow up, supported by the public purse....Among the means which have been employed to this end, none has been attended with greater success than the establishment of Boards...charged with collecting and diffusing information....and...drawing to a common centre, the results...of individual skill and observation; and spreading them thence over the whole Nation. (10)

Although the proposal was not seriously considered at the time, the idea endured down through the years due mainly to the efforts of the agricultural societies. Throughout the first half of the nineteenth century, interest in the promotion of good agricultural practices in America continued as reflected in the growing number of agricultural societies engaged in acquiring books, magazines, newspapers, and in preparing lists of their holdings. (11) These efforts to disseminate agricultural information did not go unnoticed in Congress. On May 20, 1820, the House created a Committee on Agriculture and, in 1825, the Senate followed suit. In 1828, Congress issued the first technical publication in the field of agriculture entitled Manual on the Growth and Manufacture of Silk and Treatise on the Rearing of Silk-worms authored by Joseph Ritter Von Hazzi. (12)

The first official Federal interest in the gathering of agricultural information began in 1836 under the leadership of Henry L. Ellsworth, Commissioner of the Patent Office, and son of the distinguished third Chief Justice of the Supreme Court. At this time, progress in the application of science to agriculture meant a gradual increase of reviews in the area of inventions, patents, manufactures, and sales of labor-saving machinery. Ellsworth had an unusual interest in agricultural patents, as well as in information related to plants and seeds. In 1837, he stressed the need for the Patent Office to develop a working library of scientific writings in the field of agriculture stating that:

"The necessity of a library of scientific works to facilitate the discharge of the duties of this office, need only be mentioned to be duly appreciated". (13)

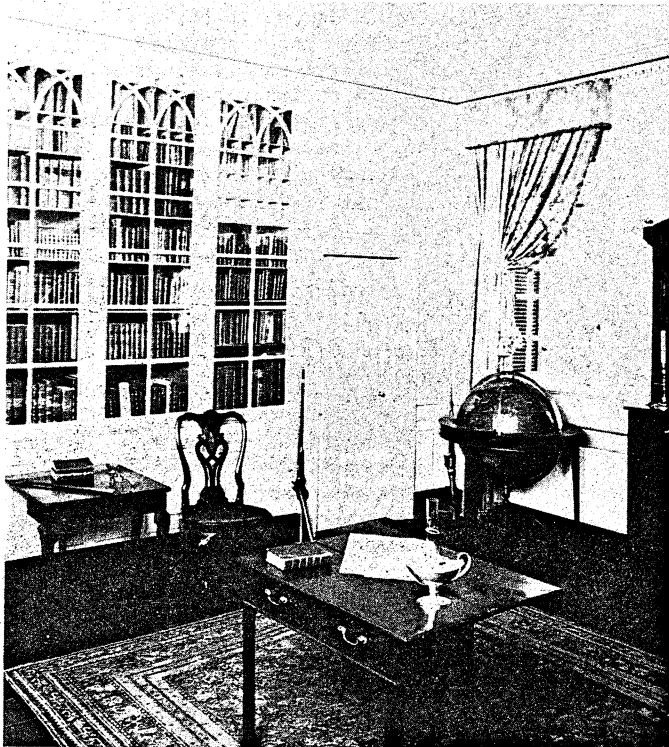
In 1839, the establishment of the Division of Agriculture in the Patent Office was accompanied by the slow growth of works dealing with agriculture. On March 3rd, of that year the sum of \$1,000 was set aside for the purchase of books for the Patent Office's Agricultural Division:

#### Purchase of Books

Sec. 5: That the sum of one thousand dollars be appropriated from the patent fund, to be expended under the direction of the Commissioner, for the purchase of books for the Library of the Patent Office. (14)

It was not long, however, before the proponents of the idea for greater Federal support for agriculture could be found in various state

organizations. The Maryland State Agricultural Society, under the stewardship of Charles Calvert, was one of the most active supporters of the idea of establishing a separate Department of Agriculture. In 1852, a convention was held at the Smithsonian attended by President Fillmore, Secretary of State Daniel Webster, and 153 delegates representing twenty-three states to organize a national agricultural society. (15) A privately supported United States Agricultural Society was formed based upon the principles originally laid down in Washington's "Farewell Address." (16) By now there had been a steady increase in the number of agricultural journals, societies, and farm clubs interested in the diffusion of agricultural information. (17) At each of its annual meetings, the Society, functioning primarily as a pressure group or lobby along with the Maryland Agricultural Society and other state and local societies, urged the establishment of a separate federally funded national Department of Agriculture. At this time, growing public awareness of the importance of agriculture was to a degree evidenced by the United States Agricultural Society's printed list of forty-five agricultural newspapers which, if considered on a broad geographic basis, extended from the Atlantic Seaboard to include most of the mid-West. (18)



1. A reproduction of George Washington's Library. Picture courtesy of Mount Vernon Ladies Association, Mount Vernon, Virginia.

## II. THE DEPARTMENT OF AGRICULTURE LIBRARY: OBJECTIVES AND GROWTH IN NATIONAL INFORMATION GATHERING RESPONSIBILITIES, 1862-1987

President Abraham Lincoln had never been personally drawn to farming and agriculture; as a politician and the highest public official, however, he was keenly aware not only that a major segment of the country was agricultural but also that an appreciation for the importance of agriculture was developing among the populace. Some sixty-six years after Washington's plea for a federally supported Board of Agriculture, President Lincoln signed the Organic Act and the Department of Agriculture Library was established along with the Department itself. Considering the strain and turmoil associated with the Civil War, it is quite probable that the creation of the Department of Agriculture and its Library would have been considerably delayed had it not been for the influence exerted by the local and state agricultural societies.

Focusing upon the objectives of the Agricultural Department Library, the language of the new law contained many thoughts, dating as far back as George Washington, on the utilization of agricultural literature. On the other hand, the new law also implied rather concisely just what the Library's basic mission should be - to collect, maintain, and disseminate information pertinent to agriculture and its related fields:

....there is hereby established at the seat of government of the United States a Department of Agriculture, the general designs and duties of which shall be to acquire and to diffuse among the people of the United States useful information on subjects connected with agriculture in the most general and comprehensive sense of that word.... (19)

The act further stated that:

....the Commissioner of Agriculture...acquire and preserve in his Department all information concerning agriculture which he can obtain by means of books and correspondence....(20)

In a broad national sense, this Act presented a fitting tribute to the interest and support of farmers in its Colonies, as well as to the generations of farmers who succeeded them.

With the establishment of the Department Library in 1862, a new federal era in agricultural information was inaugurated. At this time, the eleven largest state university libraries together comprised only 8,500 agricultural books.

By 1876, one hundred years after the declaration of American Independence, the Department of Agriculture Library with holdings of about 7,000 volumes, was referred to in a Special Report by the Department of Interior as the most complete agricultural library on the American continent. (21) Unfortunately, the growth in both the field of agriculture and the programs of the Department

of Agriculture was expanding at a much faster rate than that of the Department's Library so that is become increasingly difficult for researchers in the divisions to receive adequate library service.

In 1893, the winds of change brought internal improvement to the Department of Agriculture's Library. Shortly after Julius Sterling Morton assumed his duties as the third Secretary of Agriculture, he reviewed the existing operation of the Library. (22) On June 17, 1893, Secretary Morton, definitely intending to improve the operations of the Department Library, wrote a letter to the renowned Melvin Dewey, then Director of the New York State Library and Secretary of the State University of New York, in which he said, "the Library of the Department...(should) be put into the hands of a most thorough and competent librarian." (23)

After Civil Service examinations were given to about 30 applicants, only William P. Cutter, a graduate of Cornell University and then member of the faculty at Utah Agricultural College, was certified as eligible for appointment. (24) Cutter was quick to grasp the strong relationship between the Library services of the nearly 59,000 volumes and the welfare of the farming community, for the information acquired and stored in the library reached out to the farmer indirectly through the utilization the Library's holdings. (25) Cutter believed that:

Through its relationship with the agricultural experiment stations and colleges, the Library is attempting to be of assistance to those workers in agricultural science who are located nearer to the farmer and are thus familiar with his interests.

Little work can be accomplished in scientific investigation without access to the literature of the subject investigated and a careful search after the truth as discovered by previous investigators. (26)



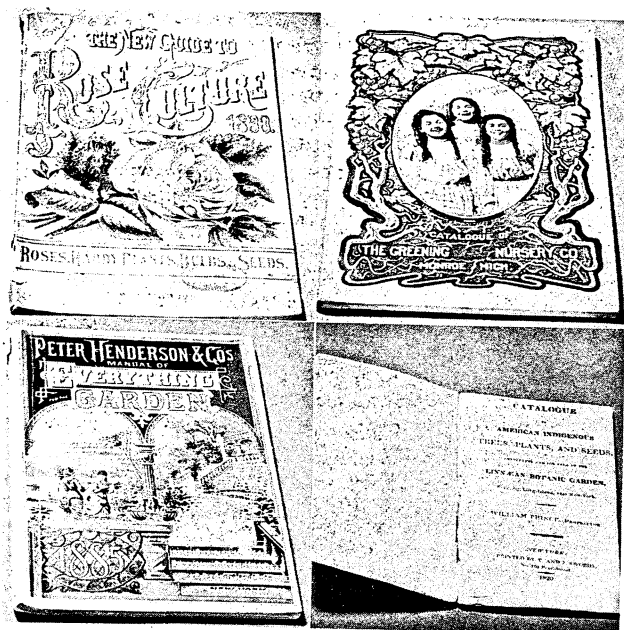
2. Library of the Department of Agriculture (east half), Plate XL from Yearbook U.S. Department of Agriculture, published in 1899. Courtesy of Special Collections, National Agricultural Library.

By the close of the Century, the Library of the Department had started printing catalog cards for Department publications and making them available to other Libraries. Secretary of Agriculture, David E. Houston, who served from 1913 until 1920 reorganized the Department to centralize its functions so that information could be disseminated to the farmers more effectively. Writing in the July, 1915 issue of the American Library Association Journal, Claribel Barnett discussed relations with the agricultural College and Experiment Stations Libraries expressing her hope "to extend...(Department Library) services as far as possible to the investigators in agricultural science throughout the country." (27) The Library was already engaged in the free distribution of duplicate publications to the agricultural colleges and experiment stations, as well as some on-the-job training for visiting librarians from state agricultural colleges. (28) Storage space continued to be a major concern so, in March of 1915, the Library was moved to enlarged quarters in the new Bieber office building at 1358 B Street, S.W.

In 1919, the Library, in cooperation with the Division of Fruit and Vegetable Crops and Diseases of the Bureau of Plant Industry, also assumed administrative responsibility for servicing the Horticulture Trade Catalogue Collection. This valuable and rapidly growing collection received extensive use in the horticultural work of the Department. (29)

This special reference collection was begun in 1904 by the Department's economic botanist, Percy Leroy Ricker. Ricker's enthusiastic interest included many trips to secondhand book stores and attics of nursery companies in search of horticulturally related catalogs. By 1920, the collection consisted of 16,344 American and 3,185 foreign catalogs. By 1940, it had grown to over 65,000. Its purpose now, as then, is to provide information regarding sources, prices, descriptions of plant material offered for sale by U.S. nurserymen, growers, and seedsmen and, to a lesser extent, by foreign firms. The collection presently contains over 150,000 items. As a repository of nursery and seed trade catalogs, this collection continues to grow in importance for indepth retrospective and historical research.

This collection is strong in American catalogs since the 1890's and, also, has extensive coverage going back to the early 1800's. The oldest American catalog in the collection is a photoprint copy dated 1771 of a list issued by the William Prince Nursery. Other 18th century catalogs for which there are photoprint copies are those issued by William Prince, dated 1790, 1793, and 1799, and by John Bartram and Co., 1790. The earliest original American catalogs in the collection are those issued by Bernard M'Mahon of Philadelphia in 1804, by Stedman and Floy in 1806, and by John Bartram and Son in 1807. As the nation expanded westward, there was a growing need for plant materials to sustain new homesteads. Nursery and seed catalogs, arriving through the mail, were a balm to homesick and lonely settlers on the prairie.



3. A collage of Four Photos of Early Seed Trade Catalogs from The Seed Trade Catalog Collection. Courtesy of Special Collections, National Agricultural Library, Beltsville, Maryland.

and in the far reaches of America's expanding frontier. They offered the renewal of hope and belief in the coming of spring. For the seedsmen, nurserymen and other plantsmen, nursery and seed trade catalogs were an instrument for both information exchange and marketing. From colonial times, these catalogs exerted a significant influence on the development of horticulture in the United States. Access and reference service to this collection is through Special Collections at NAL.

After World War I, the Department placed increased emphasis on the study of the problems of distribution and other economic phases of agriculture. After all, it was the rural sectors of the Nation that suffered most from the sudden discontinuance of wartime assistance. The Department Library with its branches in the bureaus provided critical literature necessary to assist the research being conducted on many agricultural problems across the country. (30) Strong subject areas where collecting had been in-depth included chemistry, botany, economics, and microbiology to mention just a few. Extensive bibliographic services were provided by staff members of both the main and bureau libraries. Notable lists included the following: Plant Science Catalog by Alice C. Atwood, Librarian, Bureau of Plant Industry; Literature of American Economic Entomology by Mabel Colcord, Librarian, Bureau of Entomology and Plant Quarantine; Food Control During Forty Six Centuries: A Contribution to the History of Price Fixing and Bibliography on Land Utilization both by Mary Goodwin Lacy, Librarian, Bureau of

Agricultural Economics. A growing number of important users began to increasingly depend upon the Department's library services and useful literature lists. On October 23, 1925, one user, L. E. Nettling, Manager of the Statistical Bureau in Chicago, described the usefulness and importance of the Department Library:

The work of the Library is of great value to economists and students of Agricultural Industry. Its educational value to agriculturalists is beyond calculation and impossible for translation into dollars....(31)

By the time the United States entered World War II, once plentiful raw materials became increasingly unobtainable. There emerged a need in the United States to begin growing plants from which critical fibers, oils, and drugs could be produced. The commercial growers and amateur gardeners also needed to know where to obtain seeds and stocks of vital plants. Millions of Americans were encouraged to grow Victory Gardens. Fortunately, the answer to many of these questions could be found the Department Library's Nursery and Seed Trade Catalog Collection. (32)

Six days after Pearl Harbor, the first major wartime reorganization of the Department of Agriculture was announced. This emergency effort included the reorganization of the Library to meet the new war-service problems, the rapidly shifting agricultural programs, and demand for agricultural information. (33)

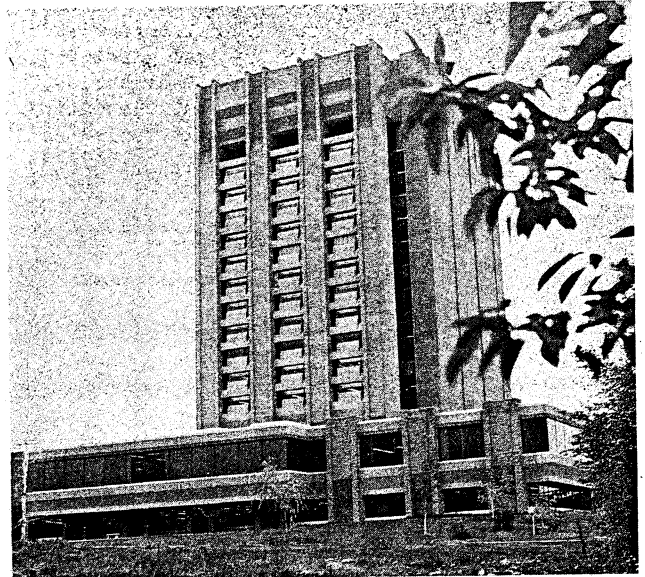


5. Signing The Proclamation Declaring The Agriculture Library A National Library. Seated is Secretary of Agriculture Orville Freeman. Standing is Foster Mohrhardt, Director of the National Agricultural Library. Courtesy of Special Collections, National Agricultural Library.

On May 23, 1962, the Secretary of Agriculture, Orville Freeman, officially designated the Department Library as the National Agricultural Library. Two days prior, a special land-grant college Advisory Committee to the National Agricultural Library recommended to Secretary of Agriculture, Orville Freeman, increased support for NAL's acquisitions program, for the Bibliography of Agriculture, for automation, and for new library facilities. (34) In 1964, Congress made funds available for preliminary studies and planning for a new library building. The selection of the Beltsville location enabled the Library to remain in the Washington metropolitan area as well as to maintain its essential liason with the other two national libraries while also providing improved services to the Departmental scientists at the Agricultural Research Center. Construction was begun in 1965 and the cornerstone was laid by Secretary Orville Freeman on September 21, 1967.

By this time, NAL's holdings comprised most extensive agricultural collection in the world. The card catalog alone included over 90,000 subject headings and cross references. In addition to the publication of the Dictionary Catalog of the National Agricultural Library 1862-1965, NAL was also exchanging about 200,000 Departmental publications annually with over 7,000 institutions and agencies in more than 150 governments. (35) In 1969, the 15 story building containing 1.5 million volumes was opened. The following year the Library's manual reproduction of the Bibliography of Agriculture was replaced by an automaged program

of more timely magnetic tape records. On December 28, 1970, through the sponsorship of Senator Bob Dole and Congressman Fred Schwengel, Public Law 91-591 became a reality giving the National Agricultural Library the authority to accept gifts of books, manuscripts, and other important agricultural memorabilia. (36) In 1971, the Associates of the National Agricultural Library, Inc. was founded to serve as a supportive "Friends of the Library" organization.



6. The National Agricultural Library Building, Beltsville, Maryland.

## CONCLUSION

Today, NAL, as the Nation's storehouse of agricultural information is important to the maximization of all agricultural research -- past, present and future. The Library's 2.1 million volumes inclusive of 25,000 journal titles as well as rare books, manuscripts, maps, oral histories, nursery and seed trade catalogs, photographs, motion pictures, video, and the donated private libraries of scientists and administrators is expanding daily. Through an effective network with the State Land-Grant and Agency Field Libraries, NAL delivers information to all sectors of the population -- from researchers to extension workers, farmers, foresters, lawmakers, industrialists, students, private citizens, and others with an interest in agriculture. Internationally, NAL is the designated by the United Nations Food and Agricultural Organization (FAO). The comprehensiveness and uniqueness of NAL's collections attract the attention of researchers around the world.



Currently, NAL responds annually to more than 30,000 informational requests exclusive of the more than 230,000 requests received solely for documents. From a scientist in Texas conducting research on the polyculture of channel catfish, to an EPA scientist conducting studies on acid rain, to an economist studying the role of agricultural trade in the overall economic growth of less developed countries, one finds NAL's general reference staff as well as its relatively new subject information centers staff actively responding with a variety of specialized strategies, literature searches, and other relevant information assistance. For example, NAL handles inquiries in subject areas such as Herb Gardening, Greenhouse Crop production, medical botany and herbal medicine, organic farming and gardening, small farms, vegetable gardening, hydroponics, farmer to consumer marketing, forest recreation. NAL also has a active publication inclusive of about 110 information products per year. (37)

The future effectiveness of the National Agricultural Library has been significantly enhanced under the leadership of Joseph Howard, the current Director. In spite of limited resources,

NAL, in cooperation with both the public and private sectors, is pro-actively involved in infrastructure development on a variety of promising information dissemination projects:

- Expanding use of computerized data bases as the sources of finding information.
- Converting full text of the Agricola Data Base to a digitized form on a CD-Rom (Compact Disc, read only memory) for faster and more inexpensive searching.
- Converting photo images to laser videodisc in order to improve speed, access, and identification while strengthening preservation efforts through reduced handling of the original files and prints.
- Using laser disk technology for developing a training and educational program on the Agricola Data Base.
- Developing Expert Systems to support and compliment the work of reference librarians answering questions and guiding the user in finding information.
- Exploring the potential for transmitting agricultural information -- image and other mediums -- nationally and internationally -- via satellite.

From the earliest agricultural information gathering activities to the private libraries of the gentleman farmers in Colonial America, to the largest agricultural library in the free world, this is a story of handing on, transition, change, and pioneering new technologies. yet throughout the agricultural journey, the information needs of the users continues to be of primary importance.

1. See Nicholas B. Millet, "A Fragment of Hatshepsut Punt Relief" Journal of the American Research Center in Egypt Volume I (1962): 55-60.
2. Rothamsted Experiment Station, Harpenden, Library Catalogue of Printed Books and Pamphlets on Agriculture 1471-1840 Aberdeen, Scotland: (The Aberdeen University Press, 1940), p.3.
3. See Leonhart Fuchs, De Historia Stipivm Commentarii Insignes... (Bascleae, 1542).
4. See Helen G. Gruichehank, John and William Bartrams (American Naturalist Series, New York, The Devin-Adair cr; 1957).
5. Descriptive annotations to works by these and other authors of the period are contained in A Selective Bibliography on George Washington's Interest in Agriculture compiled by Alan E. and Donna Jean Fusonie (Davis, Calif.: Agricultural History Center, University of California, 1976), pp.46. These works were either known to and/or read by many American gentlemen farmers.
6. Cecil Wall, "George Washington Country Gentleman," Agricultural History, 43 (January 1969): 5.
7. Letters from His Excellency George Washington to Arthur Young, esq. F.R.S., and Sir John Sinclair, bart., M.P. (London, 1801: Alexandria, Virginia, 1803). National Agricultural Library, Rare Books hereinafter cited as NAL, RB; for a comprehensive examination of Young's life as a public and private figure see The Life of Arthur Young, 1741-1820 by J.G. Gazley. (Philadelphia: The American Philosophical Society, 1973), 727 p.
8. Minutes Book of the Philadelphia Society for Promoting Agriculture 1787-1810 [Manuscript] p.60.
9. Ibid.
10. "Farewell Address" delivered by George Washington, December 7, 1796, in Fitzpatrick, XXXV, pp. 315-16. See also Letter from George Washington, Mount Vernon to William Strickland, July 15, 1797, in Fitzpatrick, XXXV, p. 501.
11. Loehr, op.cit., p. 55. For an example of this practice see also Memoirs of the Philadelphia Society for Promoting Agriculture (Philadelphia: Benjamin Warner, 1818), IV, pp. xi-xx; see also The Massachusetts Agricultural Repository and Journal (Boston: Walls and Lilly, 1819), V, pp. 393-400. NAL, RB.
12. "Abridged List of Federal Laws Applicable to Agriculture," U.S. Department of Agriculture Office of Information, No.2, November 1, 1949.
13. Report of The Commissioner of Patents, 1837 United States Patent Office 1832-1837 - Agriculture (Washington, DC.: Government Printing Office, [1842]), p. 3.

14. Report of the Commissioner of Patents, 1845 United States Patent Office (Washington, DC.: Government Printing Office [1846]), p. 13.

15. The Journal of Agriculture: Comprising The Transactions and Correspondence of the United States Agricultural Society, III, (1860), p. 14.

16. The Journal of Agriculture: Comprising the Transactions and the Correspondence of the United States Agricultural Society, III, i (April, 1860), p. 161. NAL, RB.

17. "Remarks on The Tabular Estimate," United States Patent Office - Agriculture 1847 (Washington, DC. 1847, p. 93.

18. The Journal of the United States Agricultural Society, II (1853), pp.263-64, NAL, RB.

19. Report of the Commissioner of Agriculture For the Year 1862 (Washington: Government Printing Office), p.1.

20. Ibid.

21. Special Report Department of Interior; Bureau of Education (Washington, D.C.: Government Printing Office, 1876), Part I, p. 272.

22. National Archives, RG16 Records of the Office of the Secretary of Agriculture, Letter from Sterling Morton, Secretary of Agriculture to Colonel William Lowdermilk, (Book Seller) Washington, DC., March 28, 1893.

23. National Archives, RG16 Records of the Secretary of Agriculture, Letter from Honorable J. Sterling Morton, Secretary of Agriculture to Melville Dewey, Esq. Secretary and Director State Library Regents Office, Albany, New York, June 17, 1893.

24. National Archives, RG16 Records of the Office of the Secretary of Agriculture, Letter from Julius Sterling Morton, Secretary of Agriculture to George Labingier, Beaver Falls, Pennsylvania, August 9, 1893, see also Salary Book (July 1, 1893 to June 30, 1894), p. 12.

25. William P. Cutter, "The Library" Yearbook of the Department of Agriculture 1897 (Washington, DC.: Government Printing Office, 1898), p. 221, 223.

26. Ibid., 223.

27. Claribel Barnett, "Relations of the Agricultural College and Experiment Station Libraries to the Library of the Federal Department of Agriculture," American Library Association 9(4) (July 1915): 156-159.

28. Ibid., 158.

29. See M. F. Warner, "Horticultural Libraries in the United States," The Gardeners Chronicle (May 1919): 247.

30. Letter from Clariel Barnett, Librarian to Herbert Brigham, Editor, Special Libraries January 23, 1926.

31. Letter from L.F. Wettling, Manager, Statistical Bureau - Western Lines to A.C. Johnson, Vice President, Chicago and Northwestern Railroad, Chicago, Illinois, October 23, 1925, NAL Archives.

32. Percy L. Ricker and Magdalene R. Newman, "The Nursery and Seed Trade Catalog Collection of the United States Department of Agriculture," National Horticultural Magazine. (October 1944): 220.

33. Ralph R. Shaw, "The United States Department of Agricultural Library," Library Journal 69, 6 (April 15, 1944): 333.

34. Letter and attached report from Advisory Committee, the National Agricultural Library, to the Secretary of Agriculture, Orville Freeman, May 21, 1962. NAL Archives.

35. Scientific Information Activities of the Federal Agencies--Department of Agriculture, Part III, No. 30 (March 1965); 3-13.

36. Remarks by Under Secretary of Agriculture J. Phil Campbell, at ceremonies, at the National Agricultural Library, May 4, 1971. NAL Archives.

37. See Maria Pisa, "Information Centers: From Irradiation to Biotechnology and Beyond" 1986 Yearbook of Agriculture - Research For Tomorrow., pp. 285-293.